

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method of producing an immunoglobulin constant region, comprising:

transforming *E. Coli* with a recombinant expression vector including a nucleotide sequence encoding an E.coli signal sequence isolated from ~~E. Coli~~ and a nucleotide sequence encoding an immunoglobulin constant region, without a variable region;

culturing a resulting transformant in a medium to overexpress the immunoglobulin constant region in the cytoplasm of the transformant, wherein the signal sequence of the overexpressed immunoglobulin constant region is processed; and

isolating the immunoglobulin constant region expressed by the transformant,

wherein the signal sequence is a heat-stable enterotoxin II signal sequence, and wherein the immunoglobulin constant region is expressed in the cytoplasm in a water soluble form and is not secreted into the medium or the periplasmic space.

2. (currently amended): The method according to claim 1, wherein the immunoglobulin constant region is selected from the group consisting of constant regions from IgG, IgA, IgM, IgE, and IgD.

3. (currently amended): The method according to claim 2, wherein the IgG is selected from the group consisting of constant regions from IgG1, IgG2, IgG3, and IgG4.

4. (original) The method according to claim 3, wherein the immunoglobulin constant region is an IgG4 constant region.

5. (original) The method according to claim 4, wherein the immunoglobulin constant region is a human aglycosylated IgG4 constant region.

6. (original) The method according to claim 1, wherein the immunoglobulin constant region lacks all or a portion of a hinge region.

7. (canceled).

8. (original) The method according to claim 1, wherein the recombinant expression vector comprises a nucleotide sequence encoding a heavy chain constant 1 region or a nucleotide sequence encoding a light chain constant region.

9. (original) The method according to claim 1, wherein the immunoglobulin constant region has an amino acid sequence represented by SEQ ID NO. 21, 22, 23, 24, 25, 27, 29, 30, 34 or 35.

10. (canceled).

11. (original) The method according to claim 1, wherein the heat-stable enterotoxin II signal peptide has an amino acid sequence represented by SEQ ID NO. 36, 37, 38, 39, 40, 41, 42, 43, 44, 45 or 46.

12. (original) The method according to claim 1, wherein the recombinant expression vector comprises the signal sequence, and a nucleotide sequence encoding an immunoglobulin constant region of SEQ ID NOs: 21-25, 27, 29, 30, 34, or 35.

13. (currently amended) ~~The method according to claim 1,~~ A method of producing an immunoglobulin constant region, comprising
culturing a transformant ~~wherein the transformant~~ is selected from the group consisting of E. Coli BL21/pSTIIGICH1 3(HM10935; Deposit No. KCCM-10600), BL21/pSTIIdCG1Fc (HM10927; Deposit No. KCCM-10588), BL21/pSTIIdCG1SFC (HM10928; Deposit No. KCCM-10589), BL21/pSTIIdCG1SFFc (HM10929; Deposit No. KCCM-10594), BL21/pSTIIG1Mo (HM10930; Deposit No. KCCM10595), BL21/pSTIIdCG4Fc (HM10932; Deposit No. KCCM-10597), BL21/pSTIIG4CH1 3 (HM10931; Deposit No. KCCM-10596), BL21/pSTIIG4Mo (HM10933; Deposit No. KCCM-10598), and BL21/pSTIIG4H K (HM10934; Deposit No. KCCM-10599) in a medium; and
isolating the immunoglobulin constant region expressed by the transformant.

14. (canceled).

15. (withdrawn) An immunoglobulin constant region prepared by the method of claim 1.

16. (original) The method according to claim 1, wherein the immunoglobulin constant region lacks all or a portion of a hinge region.